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Arizona Game and Fish Department Heritage Fund 2012 Report to the Arizona Legislature

Project Year July 1, 2011 to June 30, 2012

December 21, 2012

Acknowledgments

The assistance of personnel throughout the Arizona Game and Fish Department (AGFD), and our external cooperators, in preparing this report and conducting the activities reported herein is gratefully acknowledged.

Civil Rights Notification

The Arizona Game and Fish Department prohibits discrimination on the basis of race, color, sex, national origin, age, disability in its programs and activities. If anyone believes they have been discriminated against in any of the Department's programs or activities, including its employment practices, the individual may file a complaint alleging discrimination directly with the Arizona Game and Fish Department Director's Office, Arizona Game and Fish Department, 5000 W. Carefree Highway, Phoenix, Arizona 85086; (623) 236-7290, or U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Ste. 130, Arlington, Virginia 22203. If you require this document in an alternative format please contact the Arizona Game and Fish Department Director's Office as listed above or by calling TTY at 1-800-367-8939.

Project Funding

Article 6. Arizona Game and Fish Commission Heritage Fund

17-296. Definitions

In this article:

1. "Public access" means providing entry to publicly held lands for recreational use where such entry is consistent with the provisions establishing those lands.
2. "Sensitive habitat" means the specific areas within the geographical area historically or currently occupied by a species or community of species in which are found those physical or biological features essential to the establishment or continued existence of the species and which may require special management, conservation or protection considerations.
3. "Endangered species" is a designation under the federal Endangered Species Act (ESA) and means a species or subspecies or population of native Arizona wildlife whose population throughout its range has been reduced due to any cause whatsoever to such levels that it is in imminent danger of extinction, elimination from its range in Arizona, or has been eliminated from its range in Arizona.
4. "Threatened species" is a designation under the ESA and means a species, or subspecies or population of native Arizona wildlife that throughout its range, although not presently in imminent danger of extinction, being eliminated from its range in Arizona, is likely to or might become an endangered species in the foreseeable future.

5. "Candidate species" is a designation under the ESA and means a species or subspecies, or population of native Arizona wildlife that warrants designation as threatened or endangered under the ESA, but that designation by the USFWS has been precluded by higher priorities, for which habitat or population threats are known or suspected but for which substantial population declines from historic levels have not been documented.
6. "Urban wildlife" means the wildlife that occurs within the limits of an incorporated area or in close proximity to an urban area that receives significant impact from human use.
7. "Environmental education" means educational programs dealing with basic ecological principles and the effects of natural and man related processes on natural and urban systems and programs to enhance public awareness of the importance of safeguarding natural resources.
8. "Habitat evaluation" means the assessment of the status, condition and ecological value of habitat and subsequent recommendations of management, conservation or other protection measures, or mitigation measures, including but not limited to, recommendation of reasonable alternatives for the proposed projects that might otherwise affect the habitat under assessment.
9. "Habitat protection" means the process of protecting the quality, diversity, abundance, and serviceability of habitats for the purposes of maintaining or recovering populations of Arizona wildlife.

17-297. Arizona Game and Fish Commission Heritage Fund

- A. The Arizona game and fish commission heritage fund is established consisting of monies deposited from the state lottery fund pursuant to section 5-522 and interest earned on those monies.
- B. The fund shall be administered by the Arizona game and fish commission and is not subject to appropriation and expenditures from the fund are not subject to outside approval notwithstanding any provision of section 17-241 or 17-261 or any other statutory provision to the contrary. Monies received pursuant to section 5-522 shall be deposited directly with the Arizona game and fish commission heritage fund. On notice from the Arizona state game and fish commission, the state treasurer shall invest and divest monies in the fund as provided by section 35-313, and monies earned from investment shall be credited to the fund.
- C. All monies in the Arizona game and fish commission heritage fund shall be spent by the Arizona game and fish commission only for the purposes and in the percentages set forth in this article. In no event shall any monies in the fund revert to the state general fund and monies in the fund are exempt from the provisions of section 35-190 relating to lapsing of appropriations.
- D. The commission shall not use its rights of eminent domain to acquire property to be paid for with money from the Arizona game and fish commission heritage fund.

17-298. Expenditures from Fund; Purpose and Amounts; Annual Report

- A. Five per cent of the monies received pursuant to section 5-522 shall be spent on public access, including maintenance and operation expenses.
- B. Sixty per cent of the monies received pursuant to section 5-522 shall be spent on the identification, inventory, acquisition, protection and management, including maintenance and operations, of sensitive habitat. At least forty per cent of the monies available under this subsection shall be spent on the acquisition of sensitive habitat utilized by endangered, threatened and candidate species. The commission may dispose of any lands acquired for use as habitat by an endangered, threatened or candidate species under this subsection when the species no longer qualifies as an endangered, threatened or candidate species. The Arizona game and fish commission shall dispose of the land in a manner consistent with the preservation of the species of concern. The disposal may include conservation easements and fee simple transfers with associated instruments of protection. The commission shall follow the guidelines established pursuant to section 37-803 relating to the disposition of real property by a state agency. In addition, disposal shall include a written agreement between the commission and the purchaser requiring the purchaser to incorporate management actions to ensure proper maintenance of the species of concern. Management actions may include maintenance of habitat, selective control of nonnative species, maintenance of genetic viability, monitoring of populations and habitat, coordinating conservation activities, funding conservation actions and assessing conservation progress.
- C. Fifteen per cent of the monies received pursuant to section 5-522 shall be spent on habitat evaluation or habitat protection.
- D. Fifteen per cent of the monies received pursuant to section 5-522 shall be spent on urban wildlife and urban wildlife habitat programs.
- E. Five per cent of the monies received pursuant to section 5-522 shall be spent on environmental education.
- F. All monies earned as interest on monies received pursuant to section 5-522 shall be spent only in the percentages and for the purposes described in subsections A through E of this section or for costs of administering the Arizona game and fish commission heritage fund in such amounts as determined by the Arizona game and fish commission.
- G. On or before December 31 each year the commission shall submit its annual report to the president of the senate, the speaker of the house of representatives and the chairmen of the senate and house of representatives committees on natural resources and agriculture, or their successor committees. The annual report shall include information on:
 - 1. The amount of monies spent or encumbered in the fund during the preceding fiscal year and a summary of the projects, activities and expenditures relating to:
 - (a) Property acquisition.
 - (b) Identification, inventory, protection and management of sensitive habitat.
 - (c) Habitat evaluation and protection.
 - (d) Urban wildlife.
 - (e) Environmental education.
 - (f) Public access.
 - 2. The number and location of parcels of property acquired during the preceding fiscal year.

3. For personal and real properties acquired with fund monies during the preceding fiscal year, the amount of property tax revenue paid to each taxing jurisdiction during the last full tax year prior to acquisition.
4. The amount of money spent from the fund during the preceding fiscal year for employee personal services.
5. The number of full-time employees employed in the preceding fiscal year in connection with property acquisition, including survey, appraisal and other related activities.
6. The total number of full-time employees employed in the preceding fiscal year for the programs listed in subsections A through E of this section.
7. A list of the grants awarded during the preceding fiscal year including information on the recipients, purposes and amounts.

Reporting Requirement

This Heritage Program Report to the Arizona Legislature is required under, and submitted in compliance with, Arizona Revised Statutes 17-298 (G).

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IDENTIFICATION, INVENTORY, ACQUISITION, PROTECTION AND MANAGEMENT (IIAPM)

Much of Arizona's natural biological diversity is composed of nongame species, wildlife that is neither hunted nor fished in a traditional sense. The Department's successful integration of these nongame species into the totality of the Department's wildlife management program is increasingly critical to Arizona's ability to manage its future without unwarranted Federal intrusion. This is especially true with regard to the burden of Federal law and regulation and resultant litigation inherent to threatened and endangered species. Identification, Inventory, Acquisition, Protection and Management (IIAPM) focuses on wildlife or habitat that is sensitive (imperiled), including species that are federally listed as endangered or threatened.

IIAPM funds were used to support the Department's Nongame and Endangered Wildlife program and associated support programs. IIAPM funds were also used as non-federal match to leverage an additional \$1.2 million of federal grant funds through the State Wildlife Grant (SWG) program, appropriated by Congress and administered by the US Fish and Wildlife Service (USFWS). SWG funds were used to help finance our mission to conserve the diversity of Arizona's wildlife by implementing Arizona's State Wildlife Action Plan (SWAP).

Planning and Implementation of Plans

Using Heritage IIAPM funds, the Department implemented priority actions in species recovery plans, conservation agreements, management plans, and the Department's SWAP. The SWAP identified species that are most imperiled, and refers to those species as Arizona's *Species of Greatest Conservation Need*.

Some significant accomplishments funded, at least in part, by Heritage IIAPM during the reporting period include:

- Ongoing development and maintenance of a Heritage Data Management System (HDMS), a geospatially oriented system that tracks occurrence data, taxonomic information, and status information for sensitive species in Arizona. An associated Online Environmental Review Tool provides developers, planners, government partners, and the public with information on distribution, location, and status of sensitive plant and animal species. They can use the tool for environmental and National Environmental Policy Act compliance, which will reduce their preconstruction expenditures and speed up the federal permitting process (<http://www.azgfd.gov/hdms>). Species lists from the HDMS are also now available at <http://www.habimap.org> by United States Geological Survey (USGS) quadrangle.
- In September 2011, a grant from the Desert Fish Habitat Partnership was matched with Heritage funds and added to USFWS funds to purchase and install a pond liner at Middle Wallace Tank on the Raymond Wildlife Area. Prior to installing the liner, this pond was drained and deepened to improve fish habitat for a refuge population of Little Colorado spinedace. The pond is currently filling with water, and spinedace stocking is anticipated in 2013. Little Colorado spinedace are listed as threatened under the Endangered Species Act (ESA), and their wild populations are at risk of extirpation due to catastrophic wildfires and habitat degradation.



- On March 21, 2012, Heritage Funds helped Department staff host an interagency workshop on Huachuca springsnail conservation needs, which focused on developing a conservation agreement for the species. The workshop was well attended with participants from Fort Huachuca, USFWS, Arizona State Parks, Rosemont Mine, SWCA Inc., Westland Resources Inc., Audubon Research Ranch, and a species expert. Part of the workshop contained a field trip to visit several springsnail sites on Fort Huachuca and to conduct standardized surveys of the habitat and snail populations. Additionally in June 2012, Department staff coordinated and conducted baseline population surveys of known and suspected Huachuca springsnail populations on Fort Huachuca and other sites on Coronado National Forest and private land. The Huachuca springsnail is a Candidate species that will be evaluated soon on its need to be listed under the ESA.
- Heritage Funds have greatly contributed to recovery of the Chiricahua leopard frog throughout its range in Arizona, specifically by funding a vast array of recovery activities from captive rearing to “on the ground” recovery. During this reporting period, three AGFD rearing facilities (Tonto Creek Hatchery, Bubbling Ponds Hatchery, and a facility at our



Pinetop Regional Office), The Phoenix Zoo, and Discovery Park (Safe Harbor facility) produced approximately 5,000 frogs and tadpoles that were released to several wild sites and one Safe Harbor site. In particular, along the Mogollon Rim, Heritage funds have continued to support recovery activities. Drought, poor watershed conditions, and non-native species have negatively impacted frog populations in

the area. Recovery efforts here began in 2008 when the last remaining frogs were transferred to The Phoenix Zoo for captive rearing, and in 2009, the Department began in earnest releasing frogs and tadpoles at historical sites. As of FY11, biologists had re-established populations at four sites that had not been occupied since 2005. In FY12, releases continued at three of these sites, and three of the four sites had robust breeding populations. Our partners have included USFWS, the United States Forest Service (USFS), the Bureau of Land Management (BLM), volunteers, and private landowners, all of whom have provided exceptional support.

Heritage funds have also contributed to habitat renovations of earthen stock tanks in several Sky Island mountain ranges in southeastern Arizona. These renovations not only created more reliable aquatic habitat for Chiricahua leopard frogs, but will also benefit other wildlife by increasing available water throughout the year. The Department’s partnerships with USFS, Bat Conservation International, private landowners and grazing permittees have become stronger as a result of these renovations.

With ongoing support from Heritage funds, the Department, while partnering with Sky Island Alliance, USFS, and USFWS, has been able to continue intensive projects to remove invasive exotic bullfrogs from leopard frog habitats in Recovery Units 1, 2, and 5. The Department has particularly seen significant benefits in the area surrounding Peña Blanca Lake in Santa Cruz County. Based on monitoring efforts over the last year, Chiricahua leopard frogs and lowland leopard frogs have naturally colonized over 14 sites previously occupied by nonnative bullfrogs.

- For more than 20 years, the Department has surveyed for and monitored Sonoran desert tortoises (SDT) in Arizona. With few exceptions, long-term studies on SDT have found



relatively high survival of adult tortoises and tortoise populations statewide. However, without similar information regarding juvenile tortoises, it is impossible to accurately analyze or predict long term population health. Supported by IIAPM funds, in 2010 Department scientists initiated a first of its kind juvenile desert tortoise study at a site where adult tortoises have been studied since 1991. Currently, 13 juvenile tortoises are equipped with radio transmitters, allowing the Department to collect data on their growth, survival,

sources of mortality, and habitat use. Knowing this information from a site where adult tortoises have been well-studied will be useful in assessing the current and future population status of SDT throughout the state, and will contribute information critical for the proper management of the SDT population throughout Arizona.

- The Department continued to be instrumental in implementing the Flat-tailed Horned Lizard (FTHL) Conservation Agreement. This coalition of numerous state and federal agencies has been very successful in implementing conservation actions to protect the FTHL, and these actions have been the primary factor in precluding the need to list the species as Threatened by the USFWS. This was reinforced last year when the Service once again withdrew a proposed rule to list the species. Heritage funded personnel also helped to conduct the second year of an intensive range-wide survey of the FTHL in Arizona. This information, including new localities for the lizards, will be used to better refine management priorities for this species and to track population trends.



- Heritage IIAPM funds were used to manage the state's bald eagle conservation efforts, including the nationally recognized Arizona Bald Eagle Nestwatch Program. The Department used IIAPM funds as match for federal grants to conduct monthly bald eagle nest occupancy and reproductive flights from January to June with helicopter assistance from Salt River



Project, Arizona Public Service and the U.S. Bureau of Reclamation. These flights, in conjunction with ground visits, helped determine that 54 of the 66 breeding areas were occupied in 2012, and 31 of the 50 pairs that laid eggs were successful in fledging 52 nestlings. Department biologists also discovered or confirmed four new breeding areas and 12 new alternate nest locations. Twenty-one bald eagle fledglings were banded for future identification. All of these continuing efforts provide the data to allow the USFWS to keep the Arizona bald eagle from returning to the Endangered Species List.

- Using Heritage IIAPM funds as match for federal grants, the Department continues to augment Arizona's population of black-tailed prairie dogs in an effort to preclude the need to



list the species under the Endangered Species Act. A fourth translocation area was established in the Las Cienegas National Conservation Area of southern Arizona where 80 black-tailed prairie dogs were moved from New Mexico and Sonora, Mexico. This was the first translocation that occurred from a population in Sonora, which will add genetic diversity to the colonies. Due to multiple years of drought conditions and the limited forage available, the Department also began to supplementally feed black-tailed prairie dogs during the breeding season with food donated by the Phoenix Zoo. The goal was to reduce predation and

increase reproductive rates of the females. It worked. In 2011, only 11 pups emerged, and only 1 survived. In 2012 after supplemental feeding, 137 pups emerged. Arizona's goal is 7,500 occupied acres, which will meet the state's population management objective established by a multistate prairie dog conservation agreement.

- The Department continues to: monitor the endangered Sonoran pronghorn populations using bi-weekly aerial telemetry monitoring flights, restore habitats through water catchments and irrigating forage enhancement areas, and directly manage the population through captive breeding efforts. With the help of Heritage IIAPM funds, the total U.S. population has grown to at least 100 Sonoran pronghorn from a low 21 animals before the Department's intervention. In the captive breeding pen on Cabeza Prieta National Wildlife Refuge, 32 fawns were produced this year bringing the total number of pronghorn in the pen to 78. The Department also built a second captive breeding pen in unoccupied historic habitat on Kofa National Wildlife Refuge, and moved 13 pronghorn from the Cabeza pen to the new pen in December 2011. Eleven of those animals have survived, and nine fawns were produced in that pen this spring.



- Heritage IIAPM funds continue to support the endangered California condor recovery efforts



in 2012. Heritage funds allowed the Department to continue to participate as a member of the Arizona Condor Field Team, to lead the Southwest Condor Working Group, and play a contributing role on the range wide Condor Recovery Team. Since recovery efforts were initiated in the late 1980's, condor numbers have increased from a low of 22 birds to over 400 birds today. Thanks to reintroduction efforts in Arizona, almost 80 condors now soar the skies of the Grand Canyon State and range into southern Utah, to the delight of tourists and residents

alike. Eighteen condor chicks have hatched in the wilds of Arizona, a feature of this experimental population that was almost unanticipated.

Heritage funds enabled the Department to continue to promote its successful voluntary lead reduction program in 2012 - addressing the greatest challenge to condor recovery efforts: lead poisoning. Condor educational programs reached over 10,000 Arizona residents in 2012. Heritage funds also supported the Department's innovative free non-lead ammunition program. This voluntary program achieved a 90% participation rate from hunters within the condors' core condor range this past hunting season, and has garnered an 85-90% hunter participation rate for the past five years. Participating hunters either use non-lead ammunition provided free by the Department or remove their entire game carcass (including the offal pile) from the field. Thanks to the Heritage Fund and the Department's efforts, the amount of lead available to scavenging condors has been significantly reduced in Arizona. The lead reduction program has not only been overwhelming supported by the hunting community, but has been well received by the general public, as well as multiple state and federal agencies. This successful voluntary program now serves as a wildlife conservation model for several other state wildlife management agencies, including Utah, which implemented a similar program for the first time in 2012.

- The Department used Heritage IIAPM funds to monitor the recovery of endangered black-footed ferrets (BFFs) in the Aubrey Valley. During the large spotlighting events in 2012, 110 individual ferrets were trapped: 79 of them were first-time captures, and 31 were recaptures from previous events. All ferrets trapped were wild born. The Department set volunteer records for our spotlighting events, with 139 volunteers attending the spring event and 144 attending the fall event. The efforts of those volunteers helped us estimate the minimum number of ferrets in that population at 96, which exceeds Arizona's objective of 74 animals required to down-list



the black-footed ferret to threatened. All states with black-footed ferret populations are given state-specific recovery guidelines that contribute to a larger national recovery effort. The national recovery guidelines must be met before down-listing the species can be considered. Arizona's target for delisting is 148 animals. Our current numbers for 2011 exceed the state's objective for down-listing and put us closer to our delisting objective.

- Heritage IIAPM Funds helped estimate Gunnison's prairie dog occupancy and density for both Aubrey Valley and Espee Ranch reintroduction areas for black-footed ferrets. A total 816 miles of transect surveys were conducted at both sites to determine the distribution of complexes and estimating the acreage of active colonies. These surveys help the Department determine the health of the Gunnison's prairie dog population (a food source of the black-footed ferret) by estimating the occupancy rates of burrows and density of the population.



Public and Private Lands: Sensitive Habitats (Heritage IIAPM Stewardships)

The focus of the Identification, Inventory, Acquisition, Protection and Management (IIAPM) Stewardship Program is to work cooperatively with private landowners to accomplish projects that benefit sensitive habitat and at-risk species. Every effort is made to match these state funds against federal programs in order to expand the scope and impact of these projects.

The Sensitive Habitats Project works to improve the status of wildlife with particular emphasis on species listed as Species of Greatest Conservation Need in the Department's Comprehensive Wildlife Conservation Strategies Plan and restore sensitive habitats for species at-risk.

The Department worked with Landowners to complete 5 new habitat agreements utilizing Heritage IIAPM funding, of which two were focused to directly benefit perennial waters and riparian habitats critical for wildlife in Arizona. In regards to utilizing these funds as match to federal programs, all 5 of the agreements matched Department funds to outside sources in non-department funding. Staff paid out of this fund also worked on an additional 7 habitat agreements that improved grassland habitat for a suite of grassland obligate species. These projects leveraged funding from Non-profit groups and several federal agencies.

Examples of Successful Projects:

Coyote Allotment: The Department assisted with funding for a water development project located in the Buckskin Mountain area of the Arizona Strip, an important migration route connecting the Paunsaugunt area of southern Utah and Kaibab Plateau of northwestern Arizona. The project saw the installation of a water harvesting catchment with approximately 80,000 gallons of water storage capacity with a wildlife drinking facility. The wildlife that will benefit from this project includes both game and sensitive species, including but not limited to several bat species, songbirds, and mule deer. The project was a component of a coordinated resource management plan developed by rancher Ron Henderson, the United States Department of the Interior's Bureau of Land Management (USDI-BLM) and the United States Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS). This water will be available on a year round basis using solar equipment to ensure water is always available.

Smith Mesa Juniper Thinning:

The Smith Mesa Habitat Improvement Project is a cooperative project with the Spider Ranch, the Prescott National Forest and Department. Through funding provided by the Habitat Partnership Committee (HPC), Wildlife Conservation Fund and Prescott National Forest Resource Advisory Committee, approximately 640 total acres in pinion/juniper woodland in Unit 17B is being treated for Juniper encroachment. Although previously treated in the early 1980's, much of this habitat is converting to a dense juniper woodland community that is crowding out the understory, which includes numerous desirable forage species. The project is located on the Smith Canyon Allotment of the Prescott National Forest in the central portion of Unit 17B on Smith Mesa.

Hopi 3 Ranches/Clear Creek Ranch:

The Department assisted the Permittee at the Clear Creek Ranch to improve grassland habitats on the ranch. This project involved cooperating with the landowner and other government agencies to provide 161 acres of grassland habitat primarily for grassland bird assemblages, antelope and deer. Invading Juniper trees are a continual problem in grassland habitats and grinding was used

to treat portions of 4 sections of land. The total cost of the project was shared by the Hopi Nation (Cultural resources surveys), the Permittee and the Department.

Rogers Lake dirt tank cleanout/meadow stabilization:

Coconino County acquired property in and around Rogers Lake in 2011. Several dirt stock tanks are present on the acquired land and were in need of improvements to increase water storage for wildlife. The County approached the Department's Regional Habitat Program Manager for assistance in improving these stock tanks. The area has been considered for reintroduction of northern leopard frogs as well as being important for wet meadow loving birds and small mammals. Elk, deer and pronghorn also use the meadows and surface water in and around these stock tanks. The Department matched Coconino County and the work was completed in late summer. Plans are underway to evaluate one of the tanks for leopard frog reintroduction.

Property Acquisition

No Heritage Acquisition properties were purchased this fiscal year; however, the Department spent Heritage Acquisition funds for the following activities: completion of a boundary survey and appraisal update for the Triangle Bar Ranch. This pending property acquisition will help protect aquatic and riparian habitat and intermountain corridors important for threatened, endangered and sensitive species, including: the Southwestern willow flycatcher, Loach Minnow, Western yellow-billed cuckoo, Gila topminnow, Spikedace, Desert pupfish, and Chiricahua leopard frog.

Funds were also expended on a cultural resources survey of the Horseshoe Ranch and hydrological and appraisal work on two potential property acquisitions. Heritage funds supported land and water acquisitions and disposals along with existing property and water rights tracking; management of land use agreements on properties; and maintenance of property records.

No Heritage Acquisition funds were paid for property taxes to any taxing jurisdiction during the last full tax year, since no properties were purchased during the fiscal year. There are four full time employees employed by the Department in the preceding fiscal year connected to property acquisition including survey, appraisal and other related activities. The Department spent Heritage funds for Acquisition Personnel Services and for Heritage IIAPM Personnel Services for these related activities.

HABITAT EVALUATION AND PROTECTION

The Department used Heritage Habitat Evaluation and Protection funds to work with government and private entities on habitat projects, land and resource planning issues. Heritage funds were also used as match for federal dollars received in fiscal year 2012 and enabled the Department to support critical activities such as:

- Department personnel developed a training program for the new Aquatic Invasive Species (AIS) Department Policy II.7, distributed AIS educational materials (posters, mailers, brochures and other media) describing decontamination procedures and other methods the public can implement to help control aquatic invasive species to boaters at targeted waters of Arizona, and provided Watercraft Inspection Level III training.

- The Department's Invasive Species Program played a leading role in invasive species teams through collaboration with federal, state and local agencies and non-profit organizations.
- Department Aquatic Habitat Program personnel coordinated with Arizona Department of Water Resources on the development of legislative options for developing finance options for long-term water supply and development project funding.
- Department Aquatic Habitat Program personnel participated in the Glen Canyon Dam Long Term Experimental and Management Plan Environmental Impact Statement process as well as prepared an assessment report in support of an in stream flow water right for the Commission-owned Upper Verde River Wildlife Area.
- One renewal agreement on a Commission owned property was executed by Department personnel.
- Over 50 requests were filled by Department personnel providing species occurrence and status information to others for incorporation into land and resource management planning efforts for large-scale projects.
- During fiscal year 2012, 287 new records were entered and 785 records were updated within the Department's Heritage Data Management System (HDMS) by Department personnel.
- The Department continues to invest into an upgrade to the Geographic Information System (GIS) Enterprise Architecture the meets the Department's needs for the next five years, including upgrading network bandwidth, moving web services to a virtual environment, implementing geospatial and metadata standards and procedures, and creating enterprise data to create the Fisheries Information System.
- Department personnel worked cooperatively with other governmental agencies and non-profit organizations to promote data development and data sharing activities.
- The Department is proud to have publically released the HabiMap™ Arizona tool on November 30, 2011, at <http://habimap.org>. HabiMap™ Arizona is a web map and spatial query tool for Arizona's wildlife and habitat conservation potential and is intended to provide useful, landscape-level information during the early stages of project planning. Over 300 data layers are available including the Department's Species and Habitat Conservation Guide, other State Wildlife Action Plan layers, as well as modeled distribution potentials for over 200 of Arizona's wildlife species. A public media release attracted over 10,000 unique visitors in the first 16 days of the release with visitors from all U.S. States and 23 countries at an average stay of 6 minutes. To date, HabiMap™ Arizona is also being used by the public for recreation planning and for K-12 education.
- Department personnel provided technical guidance on 88 projects via the Department's Environmental Assessment Checklist (EAC) process (of which 77 have been completed) to ensure that Arizona Game and Fish activities comply with federal and state laws or other environmental legislation.

- The Department's Project Evaluation Program (PEP) received and reviewed over 1,298 evaluation requests/correspondence. Of the 1,298 documents received, 462 warranted further evaluation/review and received additional comment and/or recommendations.
- PEP developed and updated a number of plans, recommendations, and guidelines including: Wind Energy Guidelines, Solar Energy Guidelines, and Fencing Guidelines to help mitigate losses and to enhance wildlife populations.
- PEP continues to track and evaluate mitigation projects related to the Department's Army Corps of Engineer (ACOE) in Lieu Fee Mitigation Program. Habitat improvement projects throughout the state are tracked and evaluated including: AGFD Properties - Chevelon Creek Wildlife Area and Powers Butte Wildlife Area and BLM Lands - Springwater Canyon, Cieneguitas, and Martinez Canyon.

HERITAGE URBAN WILDLIFE

The Department spends the Urban Heritage funds on a wide variety of projects and activities. These activities include urban law enforcement, human-wildlife interactions, information and education public outreach, and watchable wildlife.

Urban Law Enforcement

The Department currently has 4 urban wildlife managers; three within the phoenix area and one within the Tucson area. These officers are responsible for all game and fish duties within large urban metropolitan areas. In addition to normal game and fish management activities, urban wildlife managers' duties are expanded due to the urban interface. These activities include nuisance wildlife conflicts, coordination with local planning and zoning entities, extensive education and information, and watchable wildlife.

Human Wildlife Interactions

- The Department received 2079 human wildlife conflict calls last year. Most callers were provided information on discouraging wildlife from their property, including self-help tips and methods to reduce or eliminate conflicts. Numerous incidents required site visits by officers to address the issue.
- In March 2012, the Department dealt with a very controversial and sensitive human-wildlife conflict situation within the City of Peoria. Three residents in the community were bitten by coyotes (no serious injuries) in less than 24 hours. This situation was unusual when compared to only 18 coyote bites to humans in Maricopa County over the past 15 years. The majority of these bites can be traced back to illegal feeding of coyotes by residents, although a few were the result of territorial behavior by adult coyotes protecting young of the year. Neither appeared to be the cause in this instance. The Department coordinated with Wildlife Services and the Peoria Police Department, continuously searching the area day and night, seeking out dens. In all, a total of six coyotes were removed from the community. The Department coordinated with the City Manager and Peoria residents to maintain communication and information regarding the

in progress status. The Department also conducted a large community awareness meeting with over 250 concerned residents in attendance as well as three television news crews.



- In February 2012, the Department rolled out the newest tool to reduce human-wildlife calls to the Department. The “Living with Wildlife for Property Managers” presentation was given to a group of block-watch captains and Phoenix Police Officers. The program provides information to property managers, HOA managers, community liaisons, etc. to enable them to triage wildlife conflict calls and provide self-help methods to local residents. They are supplied with Department brochures, lists of wildlife rehabilitators and wildlife service licensees, as well as a call-tree with Department contacts.
- Education efforts continued in eastern Arizona to address public safety issues associated with public feeding of nuisance wildlife, primarily bears, either intentionally or unintentionally i.e. improper storage of household garbage, per food left out. Presentations were given to local homeowner associations, and the Department issued numerous press releases and conducted several radio talk shows to discuss tips on avoiding wildlife conflicts.

Urban Wildlife Information and Education Outreach

- One of the major activities associated with Urban Heritage Funds is public information and education outreach. The Department has six Information and Education Program Managers stationed at each region across the state. These individuals are responsible for coordination and communication with local governments, media outlets, and the general public relative to wildlife management issues. Hundreds of general wildlife presentations are conducted every year across the state, covering such topics as urban wildlife, birding and wildlife viewing, outdoor awareness, venomous reptiles, as well as numerous wildlife specific presentations (owls, bats, condors, elk, bighorn sheep, bald eagles, pronghorn and waterfowl.) In many instances, the presentations included live animals from the Adobe Mountain Wildlife Center.
- In addition, the Department conducts numerous outdoor wildlife workshop-type events. These events are hands-on type activities, many times aimed at large groups (Boy Scouts, Girl Scouts, and students) or families. Events include bat mist netting, archery and air gun shooting, wildlife tracking, fishing clinics, wildlife photography, wildlife viewing,

- The Department participates in numerous events sponsored by other entities to promote public information on wildlife management. These events include Verde Valley Birding and Nature Festival, Bullhead Wings and Wildlife Festival, Prescott Earth Day Celebration, Show Low Days Outdoor Recreation Show, Woodland Lake Wildlife Festival, Yuma Nature Fair, Payson Wildlife Fair, Grand Canyon Wildlife Day, Wings over Willcox, Tres Rios Nature and Earth Festival, and Mormon Lake Outdoor Festival.

Wildlife Viewing/Watchable Wildlife

- Numerous workshops were conducted by the Department aimed at providing public tips and advice on wildlife viewing in Arizona. Bighorn Sheep workshops were conducted at Canyon Lake and along the Colorado River; bald eagle workshops were conducted in northern Arizona, and bird watching programs were conducted throughout the state.

Miscellaneous

- The Department conducted a desert tortoise adoption clinic in the Yuma area. Qualified individuals from the public were able to adopt desert tortoises that have been in captivity and cannot be returned to the wild.
- The Department developed Bird of Prey trading cards for distribution to children during outreach presentations to enhance awareness. The Birds of Prey trading cards are similar to the popular Mammals of Arizona trading cards that were developed in the past, and have been reprinted for further distribution.

HERITAGE ENVIRONMENTAL EDUCATION

The Department also conducted extensive public outreach at numerous fairs and festivals statewide to educate the public about Arizona's wildlife. Wildlife education and outreach opportunities accomplished during the reporting period included:

- Department staff and volunteers provided live wildlife education and hands on learning experiences to over 250,000 members of the public at events, workshops, expo's and fairs throughout the state.
- Approximately 9,754 4th grade students in 336 classrooms across Arizona received a live wildlife education program correlated to Arizona's Academic Content standards.
- Approximately 2,000 educators received training on and used Focus Wild Arizona's educational resources potentially providing thousands of K-12 students with wildlife education.
- Over 5,000 K-12 students and chaperones participated in the department's Youth Day at the Outdoor Expo where students gained hands-on experience in outdoor recreation and wildlife education activities.

- Over 2,070 K-12 students participated in hands on wildlife education activities throughout the state through summer camps, classroom programs, homeschooled activities and field based research events.
- Department staff serves on a variety of boards and committees that provide community support and resources throughout the state: State Testing chair for the Envirothon, Arizona Council for Social Studies board member, Be Outdoors Arizona Board member and Arizona's Instrument to Measure Standards (AIMS) content and bias review committee.
- The Adobe Mountain Wildlife Center provided immediate triage and care for over 1,000 sick, injured or orphaned wildlife that were brought into the facility.

HERITAGE PUBLIC ACCESS

Public Lands Access (Heritage Public Access)

The Landowner Relations Program oversees the Department's recreational access efforts by which the Department collaboratively enhances opportunities for the public to enjoy wildlife by identifying lands and waters that are closed to the public or that do not have sufficient access and work with all interested parties to meet recreation and other access needs.

Fiscal year 2012 was a very successful year with a number of significant accomplishments. To begin with the Department received a grant through the Voluntary Public Access and Habitat Improvement Program to increase the Department's ability to enhance or maintain public access. Additionally, the Department received a grant from Yamaha to purchase an access easement. Without Heritage Access funding, the Department would not have received this grant funding. Through this grant the citizens of Arizona received 10 times the financial resources than normally available to the Department to secure recreational access for the public, than they would have received with only Heritage funding available for securing Public access.

The Department completed 26 recreational stewardship agreements and 1 perpetual access easement with private landowners, all of which utilized Department funds to match against the Voluntary Public Access and Habitat Improvement Program and Yamaha grants. In addition the Respect program worked with approximately 300 landowners statewide and the Department assisted with 34 Adopt-A-Ranch events which included 823 volunteers totaling 7,800 volunteer hours. Using a value of \$21.69 per hour, this represents \$169,182 volunteer in kind funding that contributes to the Heritage Access funding for projects that secure access for Arizona's citizens.

Examples of Successful Projects:

Web Map- The Department, through the Voluntary Public Access and Habitat Incentive Program (VPA-HIP) grant has created an online web map service for hunters, hikers, and campers to use to help plan for their next outdoor adventure. The web map provides information to the public as well as helps promote the value of Heritage funds in securing and maintaining public access. This map can be viewed at www.azaccessmap.com

Frye Mesa Road perpetual easement- The Department, in collaboration with two landowners, the US Forest Service, and Yamaha, worked to secure perpetual recreational access into nearly 37,000 acres of US Forest Service lands outside Safford, AZ. The Frye Mesa road is the only access point to get to lakes stocked by the Department with native trout for angling opportunity, is the access point for over 200 big and small game hunters, and is the access point for campers, hikers, and OHV enthusiasts. Yamaha provided funding towards this project to purchase the right-of-way easements, while the Department contributed funding for required survey work and road modification, and the US Forest Service incorporated this road in the travel management system for the forest.

Sands Ranch: The Department reached an agreement with the Sands Ranch in Cochise County. The agreement solidifies public access to the east side of the Whetstone Mountains. This range of mountains is primarily National Forest and is flanked on all ends by private land. The Department enjoys a good relationship with the Sands Ranch and supports continuing efforts to enhance rangeland through grassland restoration. The 10 year agreement for public access further enhances the commitment and partnership between Sands Ranch and the Department.

Francis Creek-Byner Allotments: The Department partnered with the Francis Creek Ranch and Clay Overson in Mohave County to guarantee recreational access to more than 360,000 acres of public, state and private land. Francis Creek Ranch leases multiple grazing allotments from Byner Cattle Company owned by Freeport McMoRan Copper and Gold. These allotments as well as BLM leases under their own name encompass vast areas of land around the Big Sandy River and Burro Creek. These areas are very important for deer, pronghorn and javalina hunters. Quail and small game hunting is also very popular in the area. The Department is thrilled to have such an important partner in Freeport McMoRan for wildlife management and public access in Eastern Mohave County and Western Yavapai County.

OTHER REPORT REQUIREMENTS

The Department received \$10 million from lottery revenues for Heritage Funded programs and expenditures totaled approximately \$9.28 million in 2012. The following information represents Department expenditures in fiscal year 2012:

1. Heritage Funds Spent for:

(a) Property acquisition	\$76,233
(b) Identification, inventory, protection & management of sensitive species	\$2,614,592
(c) Habitat evaluation and protection	\$237,251
(d) Urban Wildlife	\$1,302,960
(e) Environmental education	\$456,878
(f) Public access	\$385,255
2. No properties were acquired with Heritage Funds in FY 2012.
3. As no properties were acquired, no tax revenue was paid to any taxing jurisdiction.

4. The Department spent \$2,958,498 for employee personnel services and \$1,287,385 for employee related expenses.
5. Three employees charged time to Heritage funds, when involved with Heritage funded property acquisition. These employees also charge non-Heritage fund sources.
6. The Department employed 59 full-time employees and 12 partially funded employees for all of the Heritage-funded programs to include 15 Department administrative positions.
7. \$156,800 was the total legislatively transferred from the Heritage Fund in FY 2012.
8. The list of Heritage Grants awarded follows:

2012 HERITAGE FUNDED – GRANT AWARDS

In fiscal year 2012, the Department awarded a total of twenty-three Heritage Fund Grants out of ninety-nine grant application proposals received for a total of \$415,647 in Heritage Funded Grants. The Department conducted six Heritage Grant Workshops held in five communities throughout Arizona during August 2011.

Environmental Education (EE). The Department received twenty-nine EE grant application proposals with a total of \$ 32,000 available and awarded six education program Heritage Grants totaling \$31,359.

1. E12001-Deer Valley Unified School District, for the project ***“Sonoran Desert Studies Program: Outdoor Wildlife Education.”*** The award is in the amount of \$6,159.
2. E12002-Tempe Union School District, for the project ***“Environmental Biology Field Course A Post-Fire Revision via Professional & Curriculum Development.”*** The award is in the amount of \$1,700.
3. E12006-Coconino County Superintendent of Schools, for the project ***“Five-Points Project: Exemplary Environmental Education in Northern Arizona.”*** The award is in the amount of \$10,000.
4. E12016-City of Phoenix, for the project ***“Audubon Arizona's River Connection Field Trip Transport.”*** The award is in the amount of \$2,500.
5. E12020-Arizona Western College, for the project ***“Bighorn Sheep Student Conservation Experience.”*** The award is in the amount of \$2,500.
6. E12024-Bureau of Land Management, for the project ***“Pathways to youth engaged stewardship on the Las Cienegas National Conservation area.”*** The award is in the amount of \$8,500.

Schoolyard Habitat. The Department received eleven Schoolyard grant application proposals with \$37,500 available and awarded five schools with Schoolyard Habitat Heritage Grants totaling \$37,142.

1. S12001-Vail School District, for the project ***“Outdoor Learning Lab.”*** The award is in the amount of \$4,100.
2. S12002-Tempe Union High School District, for the project ***“Desert Vista Natural Habitat Project.”*** The award is in the amount of \$9,555.
3. S12004-Tucson Unified School District, for the project ***“Outdoor Wildlife Learning at Manzo Elementary School.”*** The award is in the amount of \$ 8,600.
4. S12006-Skyview Charter School, for the project ***“Skyview Schoolyard Habitat.”*** The award is in the amount of \$ 5,887.00.
5. S12010-Arizona State University, for the project ***“Let Nature Be Our Teacher.”*** The award is in the amount of \$ 9,000.00.

Urban Wildlife/Urban Habitat. The Department received twenty-five Urban grant application proposals with \$112,500 available and awarded five separate communities with Urban Heritage Grants totaling \$112,500.

1. U12003-Town of Pinetop-Lakeside, for the project ***“White Mountains Wildlife Viewing Guide Webpage Development.”*** The award is in the amount of \$ 7,782.00.
2. U12011-City of Chandler, for the project ***“Tour de Bird.”*** The award is in the amount of \$ 9,080.00.
3. U12013-City of Tucson, for the project ***“Tucson Bird and Wildlife Festival: Birders Mean Business.”*** The award is in the amount of \$ 17,302.00.
4. U12014-City of Scottsdale, for the project ***“McDowell Sonoran Conservancy Baseline Fauna Survey.”*** The award is in the amount of \$ 24,600.00.
5. U12016-Mesa Community College, for the project ***“Red Mountain Cienega Courtyard Educational Display.”*** The award is in the amount of \$ 53,736.00.

Public Access. The Department received six Access grant application proposals with \$50,000 available and awarded two communities with Access Heritage Grants totaling \$50,000.

1. P12003-Town of Sahuarita, for the project ***“Sahuarita Lake- Public Access for Persons with Disabilities.”*** The award is in the amount of \$ 9,500.00.
2. P12004-Town of Clarkdale, for the project ***“Verde River @ Clarkdale.”*** The award is in the amount of \$ 40,500.00.

IIAPM received twenty-eight grant application proposals with \$200,000 available and awarded five organizations with IIAPM Heritage Grants totaling \$184,646.

1. I12007-University of Arizona, for the project ***“Genetic Assessment of Arizona and Northern Mexico Ocelots.”*** The award is in the amount of \$ 14,528.00.
2. I12017-USDA Forest Service, for the project ***“Protection of Sensitive Habitat for Ferruginous Hawks and Other Grassland Wildlife on the Williams Ranger District, Kaibab National Forest.”*** The award is in the amount of \$49,636.00.
3. I12023-University of Arizona, for the project ***“Using Lidar to Map Distribution and Abundance of the Red-Faced Warble.”*** The award is in the amount of \$ 45,091.00.
4. I12024-University of Arizona, for the project ***“Status of the Arizona Gray Squirrels in the Santa Catalina and Rincon Mountains.”*** The award is in the amount of \$ 30,580.00.
5. I12028-Northern Arizona University, for the project ***“Northern Mexican Gartersnake Habitat Use and Ecology.”*** The award is in the amount of \$44,811.00.